

## STN - Structure Search

10/590,305

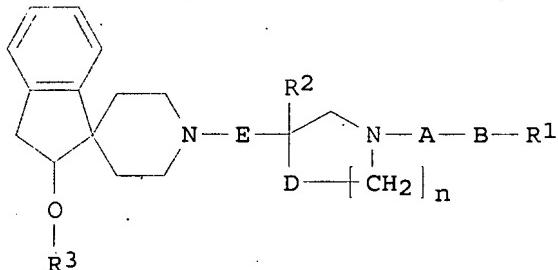
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*Answers*

L4 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2007:377089 CAPLUS  
 DOCUMENT NUMBER: 146:351393  
 TITLE: Pharmaceutical compositions containing indanol derivatives having neurokinin receptor antagonistic effects  
 INVENTOR(S): Nishi, Takehide; Takemoto, Toshiyasu; Morimoto, Kiyoshi; Ikeda, Takuya  
 PATENT ASSIGNEE(S): Sankyo Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 113pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007084530	A	20070405	JP 2006-223730	20060821
PRIORITY APPLN. INFO.:			JP 2005-239300	A 20050822
OTHER SOURCE(S):	MARPAT	146:351393		
GI				



AB The invention provides a pharmaceutical composition characterized by containing an

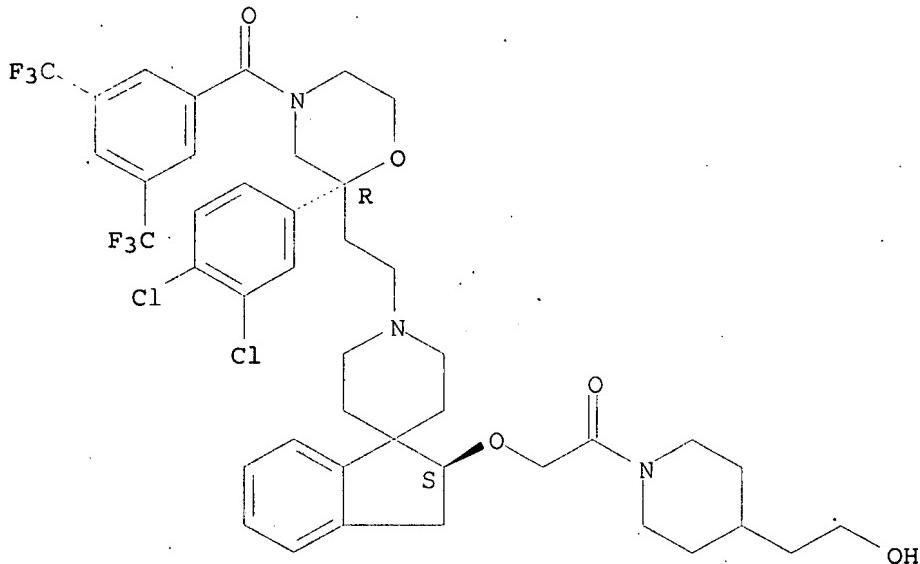
indanol derivative I [R1, R2 = (un)substituted aryl, (un)substituted heteroaryl; R3 = COR4, COOR4, CONHR4 (R4 = lower alkyl, cycloalkyl, alkenyl, etc.), etc; A = methylene, carbonyl, sulfonyl; B = single bond, C1-4 alkylene, C2-4 alkenylene; D = O, methylene; E = C1-4 alkylene, C2-4 alkenylene; n = 1-3]. The composition has excellent neurokinin receptor antagonistic effect, and suitable for use for treatment of NK1, NK2, and/or NK3-related disease, e.g. respiratory disease, allergy, and/or urinary incontinence. For example, a compound 1-[2-[(2R)-2-(3,4-dichlorophenyl)-4-[3,5-bis(trifluoromethyl)benzoyl]morpholin-2-yl]ethyl]spiro[(2S)-2-[(morpholin-1-yl)acetyl]oxy]indane-1,4'-piperidine dihydrochloride was prepared, and examined for neurokinin receptor binding affinity in vitro. Also, an inhalant solution containing the compound is also formulated.

IT 863612-61-7P 863612-63-9P 863612-65-1P  
 863612-67-3P 863612-69-5P 863612-71-9P  
 863612-73-1P 863612-75-3P 863612-77-5P  
 863612-79-7P 863612-81-1P 863612-83-3P  
 863612-85-5P 863612-87-7P 863612-89-9P  
 863612-92-4P 863612-94-6P 863612-96-8P  
 863612-98-0P 863613-00-7P 863613-02-9P

10/590,305.

piperidin]-2-yl]oxy]-1-[4-(2-hydroxyethyl)-1-piperidinyl]- (CA INDEX NAME)

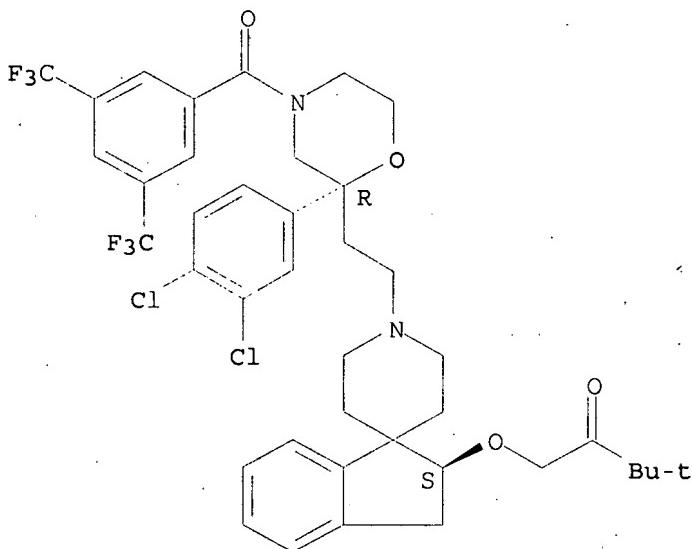
Absolute stereochemistry.



RN 930117-09-2 CAPLUS

CN 2-Butanone, 1-[(2S)-1'-(2-[(2R)-4-[3,5-bis(trifluoromethyl)benzoyl]-2-(3,4-dichlorophenyl)-2-morpholinyl]ethyl)-2,3-dihydrospiro[1H-indene-1,4'-piperidinyl]-2-yl]oxy]-3,3-dimethyl- (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2007:61551 CAPLUS

DOCUMENT NUMBER: 146:156227

TITLE: Pharmaceutical for prevention of hypersensitivity

INVENTOR(S): Nishi, Takahide; Tsuchida, Hiroshi

PATENT ASSIGNEE(S): Sankyo Company, Limited, Japan

10/590,305

SOURCE: PCT Int. Appl., 19pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

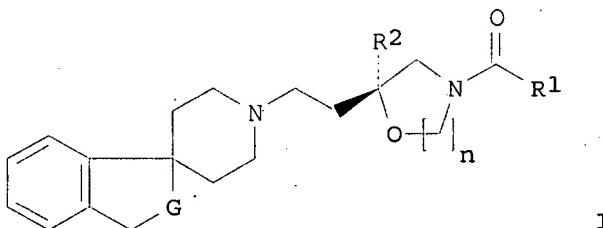
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007007625	A1	20070118	WO 2006-JP313455	20060706
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
PRIORITY APPLN. INFO.:			JP 2005-199217	
OTHER SOURCE(S):	MARPAT 146:156227			A 20050707

GI



AB Disclosed is a pharmaceutical composition for preventing hypersensitivity induced by taxoid. A pharmaceutical composition for preventing hypersensitivity induced by taxoid, the composition comprising a compound represented by the general formula (I) or a pharmacol. acceptable salt thereof as an active ingredient: (I) wherein R1: a substituted phenyl; R2: a halo-substituted phenyl; G: >C-OH or >S=O; and n:1 or 2.

IT 231938-14-0 771476-75-6

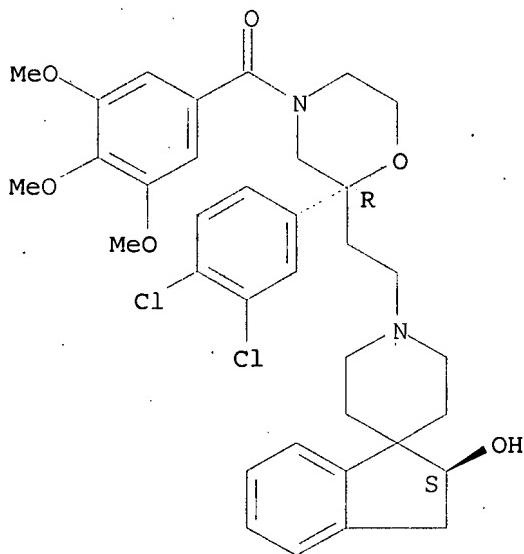
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(1-{(2R)-[3,4-dichlorophenyl]-4-[3,5-bis(trifluoromethyl)benzoyl]morpholin-2-yl}ethyl}spiro[(2S)-hydroxy]indan-1,4'-piperidine] analogs for prevention of hypersensitivity from taxoids)

RN 231938-14-0 CAPLUS

CN Methanone, [(2R)-2-(3,4-dichlorophenyl)-2-{2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl}-4-morpholinyl] (3,4,5-trimethoxyphenyl) - (CA INDEX NAME)

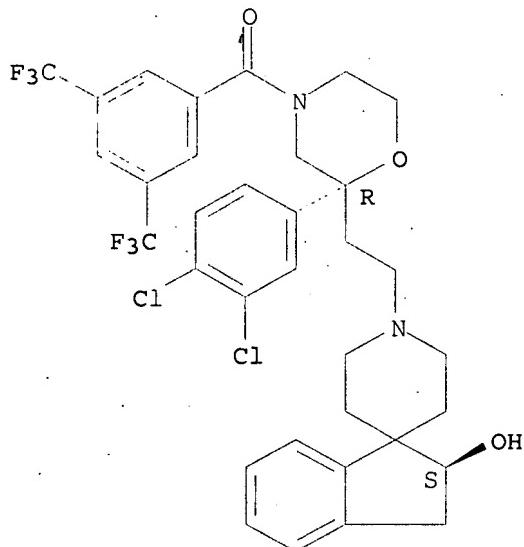
Absolute stereochemistry. Rotation (+).



RN 771476-75-6 CAPLUS

CN Methanone, [3,5-bis(trifluoromethyl)phenyl] [(2R)-2-(3,4-dichlorophenyl)-2-[2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-4-morpholinyl] - (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L4 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:601053 CAPLUS

DOCUMENT NUMBER: 145:76660

TITLE: Neurokinin receptor antagonist and anticholinergic agent for combination prevention and treatment of respiratory tract diseases

INVENTOR(S): Morimoto, Kiyoshi

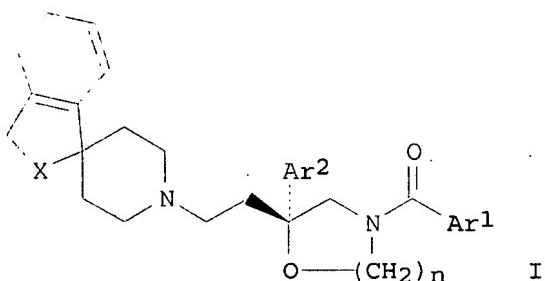
PATENT ASSIGNEE(S): Sankyo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

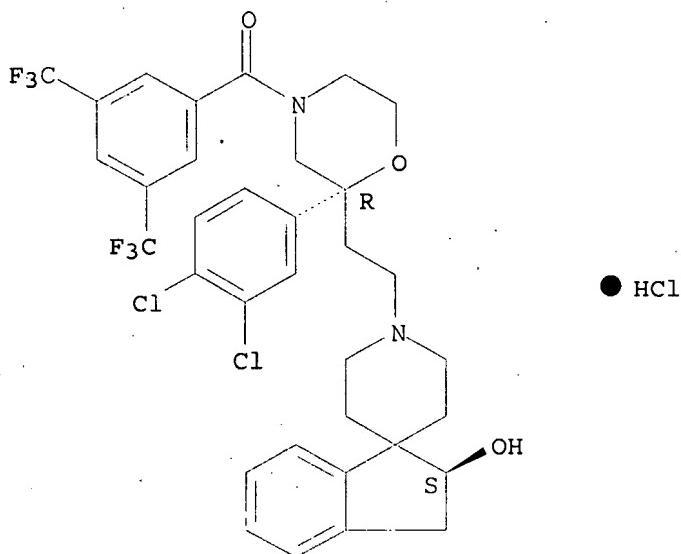
DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006160639	A	20060622	JP 2004-352292	20041206
PRIORITY APPLN. INFO.:			JP 2004-352292	20041206
OTHER SOURCE(S):	MARPAT 145.76660			
GI				



- AB Neurokinin receptor antagonist (I; Markush's structure given) and anticholinergic agent, including tiotropium bromide, ipratropium bromide, and oxytiotropium bromide, are claimed for combination prevention and treatment of respiratory tract diseases, including rhinitis, COPD, bronchitis, and asthma. Formulation examples of granules, capsules, tablets, and inhalants were given.
- IT 771476-76-7P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (neurokinin receptor antagonist and anticholinergic agent for combination prevention and treatment of respiratory tract diseases)
- RN 771476-76-7 CAPLUS
- CN Morpholine, 4-[3,5-bis(trifluoromethyl)benzoyl]-2-(3,4-dichlorophenyl)-2-[2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-, monohydrochloride, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L4 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2005:1196188 CAPLUS

DOCUMENT NUMBER: 143:452878

TITLE: Pharmaceuticals for prophylactic and therapeutic treatment of irritable bowel syndrome, use of morpholine analogs for them, and method for the treatment

INVENTOR(S): Ito, Keiichi; Kinoshita, Kazuya

PATENT ASSIGNEE(S): Sankyo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

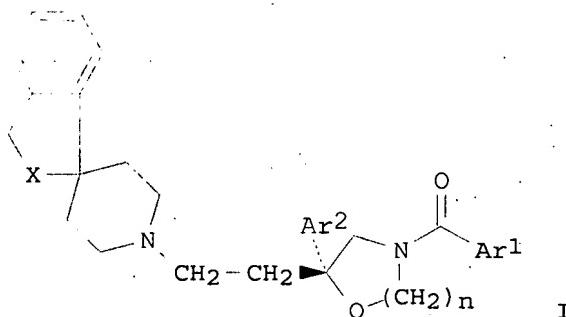
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

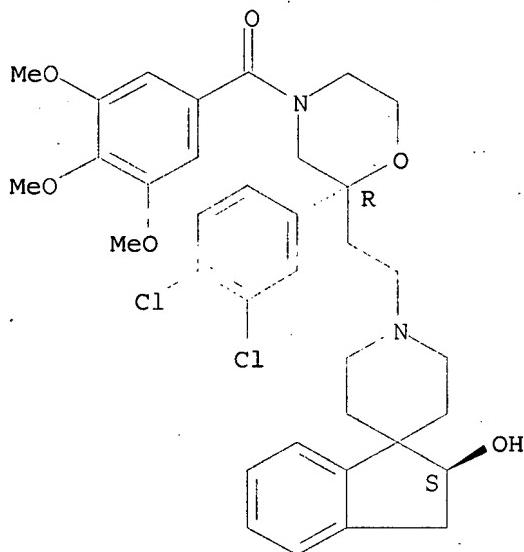
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005314313	A	20051110	JP 2004-135291	20040430
PRIORITY APPLN. INFO.:			JP 2004-135291	20040430
OTHER SOURCE(S): MARPAT		143:452878		
GI				



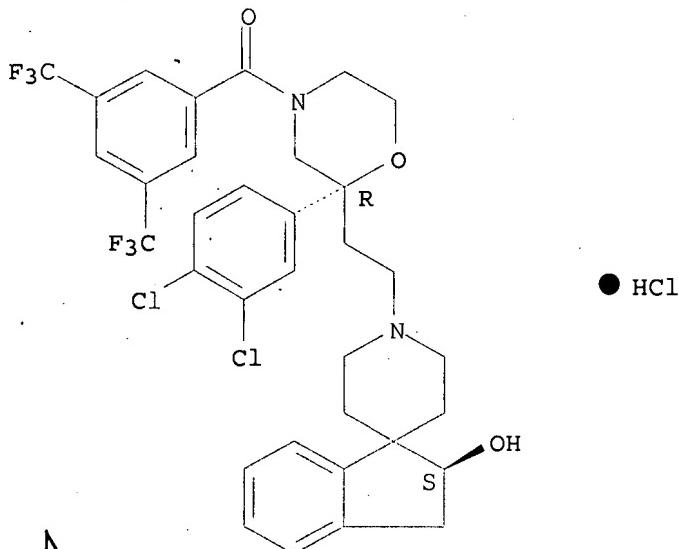
- AB Title pharmaceuticals contain morpholine analogs I [Ar1 = Ph substituted with 1-3 OH, Cl-4 alkoxy, Cl-4 (halo)alkyl, tetrazolyl; Ar2 = mono- or dihalophenyl; X = CH(OH), SO, SO<sub>2</sub>; n = 1, 2] or their pharmacol. acceptable salts as active ingredients. Thus, 1-[2-[(2R)-(3,4-dichlorophenyl)-4-(3,4,5-trimethoxybenzoyl)morpholin-2-yl]ethyl]spiro[benzo[c]thiophen-1(3H),4'-piperidine]-2S-oxide HCl salt at 10 mg/kg s.c. significantly increased the threshold of rectus abdominis muscle contraction in guinea pigs. Some formulation data are also given.
- IT 231938-14-0 231945-20-3 771476-75-6  
771476-76-7  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(morpholine analogs for treatment of irritable bowel syndrome)
- RN 231938-14-0 CAPLUS
- CN Methanone, [(2R)-2-(3,4-dichlorophenyl)-2-[2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-4-morpholinyl] (3,4,5-trimethoxyphenyl)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



- RN 231945-20-3 CAPLUS
- CN Morpholine, 2-(3,4-dichlorophenyl)-2-[2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-4-(3,4,5-trimethoxybenzoyl)-, monohydrochloride, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



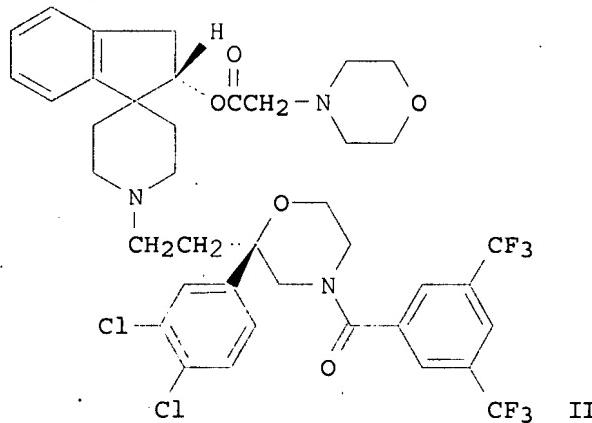
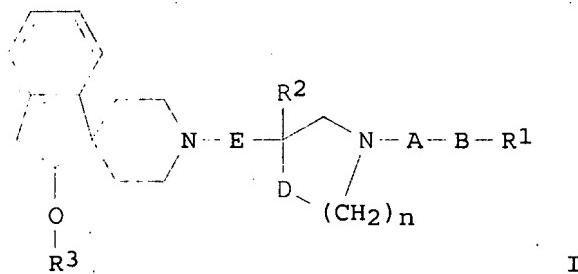
*Drexler*

L4 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2005:962250 CAPLUS  
 DOCUMENT NUMBER: 143:266827  
 TITLE: Preparation of spiroindan-1,4'-piperidine derivatives as neurokinin receptor antagonists  
 INVENTOR(S): Nishi, Takahide; Takemoto, Toshiyasu; Ikeda, Takuya; Morimoto, Kiyoshi  
 PATENT ASSIGNEE(S): Sankyo Company, Limited, Japan  
 SOURCE: PCT Int. Appl., 193 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005080385	A1	20050901	WO 2005-JP3545	20050224
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2005214274	A1	20050901	AU 2005-214274	20050224
CA 2557539	A1	20050901	CA 2005-2557539	20050224
JP 2005272455	A	20051006	JP 2005-48130	20050224
EP 1746095	A1	20070124	EP 2005-719860	20050224
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR				
CN 1922173	A	20070228	CN 2005-80005982	20050224
IN 2006KN02650	A	20070601	IN 2006-KN2650	20060913
NO 2006004299	A	20061106	NO 2006-4299	20060922
PRIORITY APPLN. INFO.:			JP 2004-49255	A 20040225

OTHER SOURCE(S) :  
GI

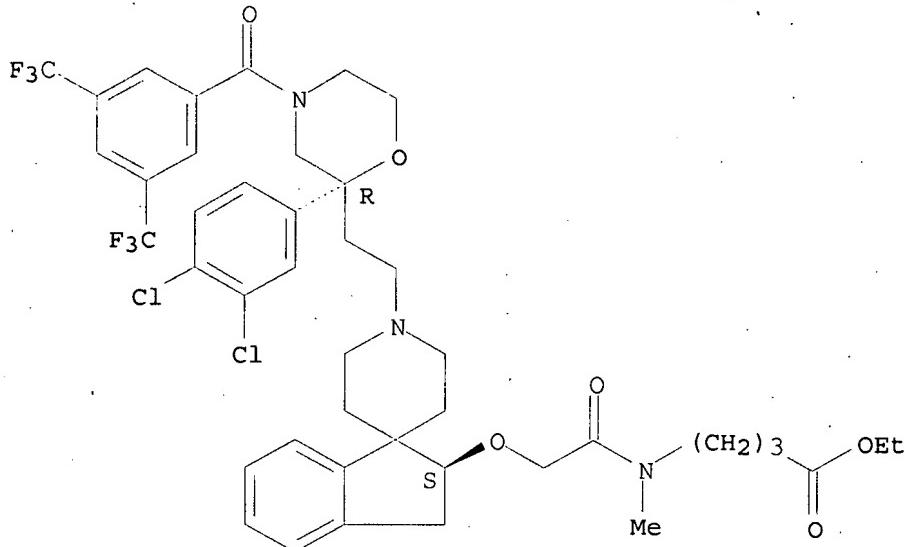
MARPAT 143:266827



AB The title compds. represented by the general formula (I) [R1, R2 = each (un)substituted aryl or heteroaryl; R3 = COR4, CO2R4, CONHR4, COCH2N(Ra)Rb, (CH2)m COR5, (CH2)mR5, CONHCON(Ra)Rb, CONHSO2N(Ra)Rb, CONHCO(CH2)mN(Ra)Rb, CONH2; R4 = lower alkyl, (un)substituted cycloalkyl, lower alkenyl, lower alkynyl, halo-lower alkyl, hydroxy-lower alkyl, lower alkoxyalkyl, lower fatty acyloxyalkyl, lower alkoxy carbonylalkyl; R5 = HO, OR4, N(Ra)Rb; Ra, Rb = H, HO, lower alkoxy, hydroxy-lower alkoxy, hydroxy-lower alkoxyalkyl, lower alkoxy-lower alkoxyalkyl, cyano-lower alkyl, cyano-lower alkoxyalkyl, carboxy-lower alkyl, carboxy-lower alkoxyalkyl, etc.; m = 1-6; A = CH2, CO, SO2; B = a single bond, C1-4 alkylene, C2-4 alkenylene; D = O, CH2; E = C1-4 alkylene, C2-4 alkenylene; n = 1-3] are prepared. These compds. are neurokinin receptor antagonists and useful for the prevention and/or treatment of diseases mediated by neurokinin 1 (NK1), neurokinin 2 (NK2), and/or neurokinin 3 (NK3) receptor including respiratory tract diseases, allergic diseases, and/or urinary incontinence, in particular asthma, bronchitis, rhinitis, and chronic obstructive pulmonary disease. Thus, a solution of 400 mg 1-[2-[(2R)-2-(3,4-dichlorophenyl)-4-[3,5-bis(trifluoromethyl)benzoyl]morpholin-2-yl]ethyl]spiro[(2S)-2-hydroxy]indan-1,4'-piperidine, 248 mg 2-(morpholin-4-yl)acetic acid, and 0.48 mL Et3N in 12 mL CH2Cl2 was treated with 435 mg N,N-bis(2-oxo-3-oxazolidinyl)phosphinic acid chloride and 7 mg 4-dimethylaminopyridine under ice-cooling and stirring, and stirred at room temperature for 1 h to give, after workup and silica gel chromatog. and treatment with 4 N HCl/dioxane, 1-[2-[(2R)-2-(3,4-dichlorophenyl)-4-[3,5-bis(trifluoromethyl)benzoyl]morpholin-2-yl]ethyl]spiro[(2S)-2-[(morpholin-4-yl)acetyl]oxy]indan-1,4'-piperidine dihydrochloride (II).2HCl at 10 µg/kg inhibited by 97% the

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

● HCl

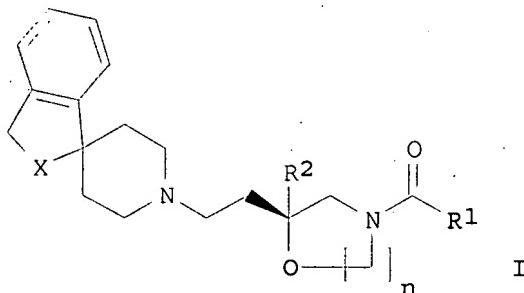
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2005:55071 CAPLUS  
 DOCUMENT NUMBER: 142:141259  
 TITLE: Medicinal compositions containing tachykinin receptor antagonists for pulmonary administration  
 INVENTOR(S): Morimoto, Kiyoshi; Satoh, Yumiko  
 PATENT ASSIGNEE(S): Sankyo Company, Limited, Japan  
 SOURCE: PCT Int. Appl., 36 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005004875	A1	20050120	WO 2004-JP10237	20040712
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

JP 2005047900 A 20050224 OTHER SOURCE(S): MARPAT 142:141259  
 PRIORITY APPLN. INFO.: GI

JP 2004-204025 JP 2003-273805 A 20030714  
 20040712



**AB** Disclosed is an inhalant which contains morpholinylethylspiroindanepiperidine derivs. and analogs thereof (I) (R1 is optionally substituted phenyl; R2 is halophenyl; X is CH(OH), SO, or SO<sub>2</sub>; and n is 1 or 2.). The inhalant is useful for the treatment of respiratory diseases. For example, an inhalant composition was formulated containing 1-[2-[(2R)-(3,4-dichlorophenyl)-4-[3,5-bis(trifluoromethyl)benzoyl]morpholin-2-yl]ethyl]spiro[[(2S)-hydroxy]indan-1,4'-piperidine] hydrochloride (preparation given) 10, benzalkonium chloride 0.04, phenethyl alc. 0.4, and distilled water 89.56 %.

**IT** 231938-14-0 231945-20-3

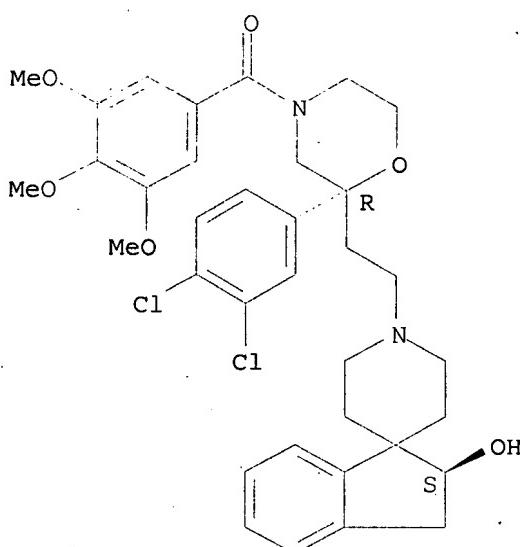
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(inhalants containing tachykinin receptor antagonists for treatment of respiratory diseases)

**RN** 231938-14-0 CAPLUS

**CN** Methanone, [(2R)-2-(3,4-dichlorophenyl)-2-[2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-4-morpholinyl](3,4,5-trimethoxyphenyl)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

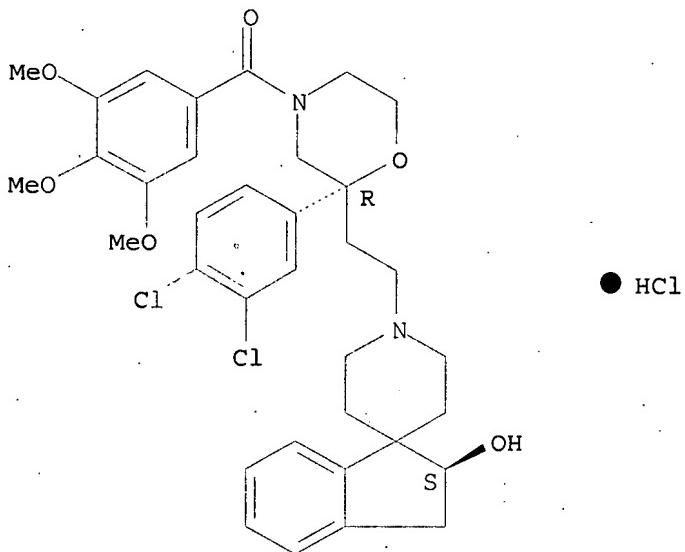


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RN 231945-20-3 CAPLUS

CN Morpholine, 2-(3,4-dichlorophenyl)-2-[2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-4-(3,4,5-trimethoxybenzoyl)-, monohydrochloride, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



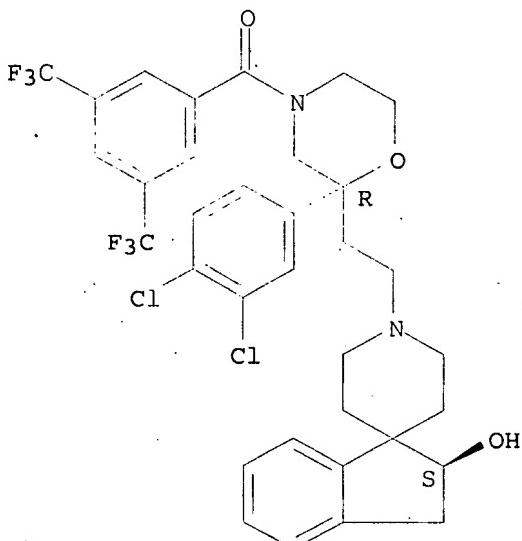
IT 771476-75-6P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(preparation of morpholinylethylspiroindanepiperidine derivs. and inhalants containing them for treatment of respiratory diseases)

RN 771476-75-6 CAPLUS

CN Methanone, [3,5-bis(trifluoromethyl)phenyl][(2R)-2-(3,4-dichlorophenyl)-2-[2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-4-morpholinyl]- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IT 771476-76-7P

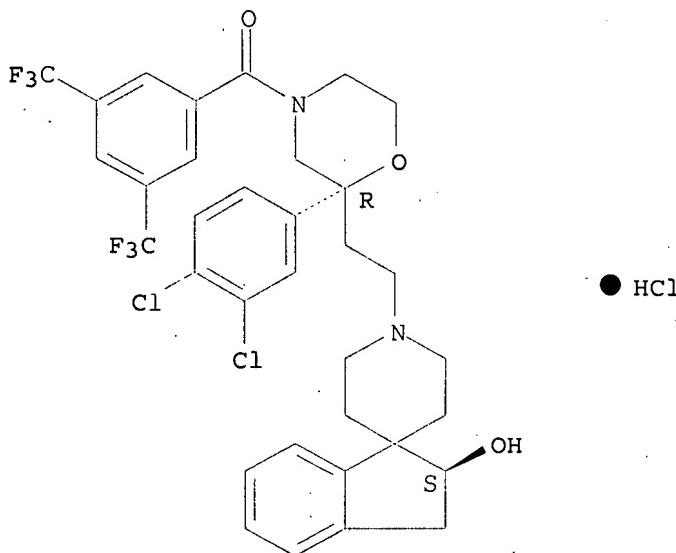
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of morpholinylethylspiroindanepiperidine derivs. and inhalants containing them for treatment of respiratory diseases)

RN 771476-76-7 CAPLUS

CN Morpholine, 4-[3,5-bis(trifluoromethyl)benzoyl]-2-(3,4-dichlorophenyl)-2-[2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-, monohydrochloride, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT:

8

THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

J L4 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:857409 CAPLUS

DOCUMENT NUMBER: 141:325698

TITLE: Therapeutic agent for prostatic hypertrophy

INVENTOR(S): Nishi, Takahide; Sanbuissho, Atsushi

PATENT ASSIGNEE(S): Sankyo Company Limited, Japan

SOURCE: PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004087165	A1	20041014	WO 2004-JP4349	20040326
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,				

10/590,305

ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,  
SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,  
TD, TG

JP 2004315510

A 20041111

JP 2004-90728

20040326

PRIORITY APPLN. INFO.:

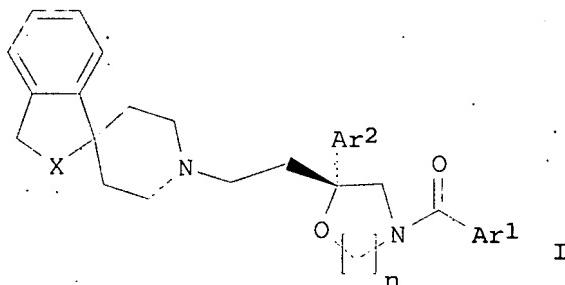
JP 2003-90431

A 20030328

OTHER SOURCE(S) :

MARPAT 141:325698

GI



AB A medicinal composition for the prevention of or treatments for prostatic hypertrophy or prostatic cancer, which contains as an active ingredient a compound represented by the following general formula (I) or a pharmaco. acceptable salt of the compound I [Ar1 is substituted phenyl; Ar2 is halophenyl; X is CH(OH), SO, etc.; and n is 1 or 2.].

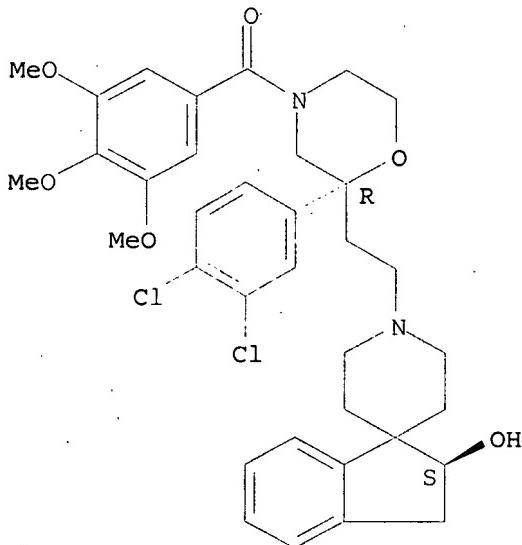
IT 231938-14-0 231945-20-3 771476-75-6  
771476-76-7

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(indanpiperidine analogs as therapeutic agents for prostatic hypertrophy and cancer)

RN 231938-14-0 CAPLUS

CN Methanone, [(2R)-2-(3,4-dichlorophenyl)-2-[2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-4-morpholinyl](3,4,5-trimethoxyphenyl)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

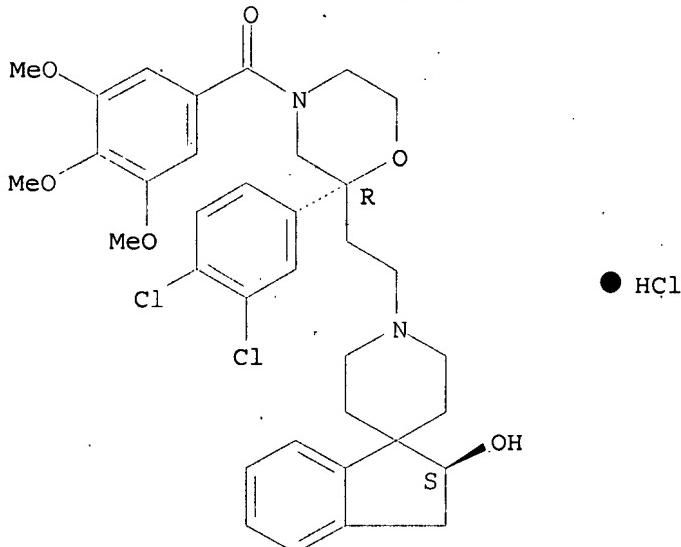


RN 231945-20-3 CAPLUS

10/590,305

CN Morpholine, 2-(3,4-dichlorophenyl)-2-[2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-4-(3,4,5-trimethoxybenzoyl)-, monohydrochloride, (2R)- (9CI) (CA INDEX NAME)

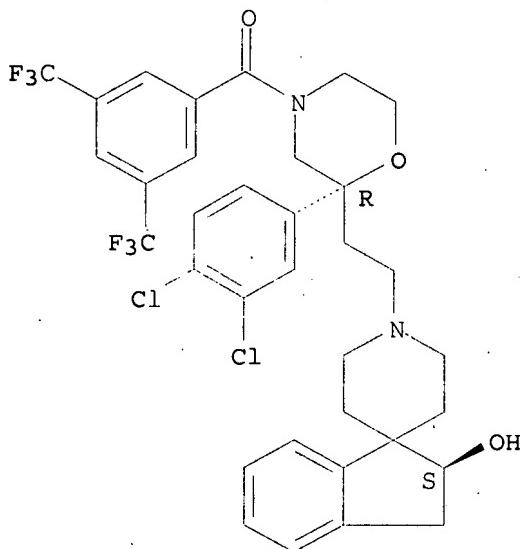
Absolute stereochemistry. Rotation (+).



RN 771476-75-6 CAPLUS

CN Methanone, [3,5-bis(trifluoromethyl)phenyl] [(2R)-2-(3,4-dichlorophenyl)-2-[2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-4-morpholinyl]- (CA INDEX NAME)

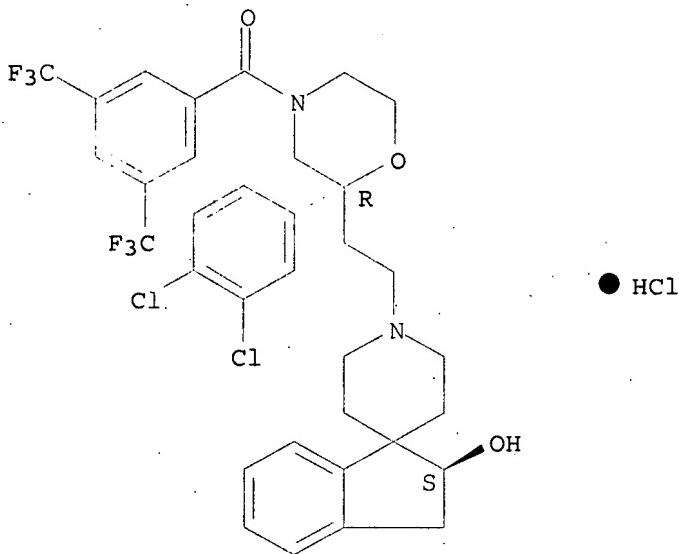
Absolute stereochemistry. Rotation (+).



RN 771476-76-7 CAPLUS

CN Morpholine, 4-[3,5-bis(trifluoromethyl)benzoyl]-2-(3,4-dichlorophenyl)-2-[2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-, monohydrochloride, (2R)- (9CI) (CA INDEX NAME)

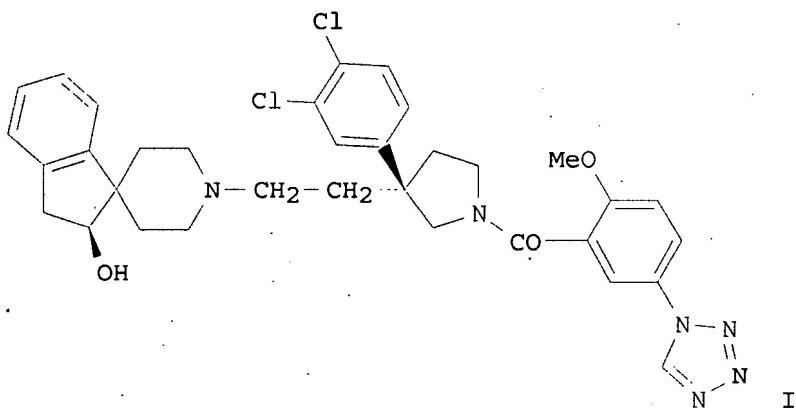
Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2002:827456 CAPLUS  
 DOCUMENT NUMBER: 137:333154  
 TITLE: Pharmaceutical compositions containing 2-alkoxybenzene derivatives as tachykinin receptor antagonists  
 INVENTOR(S): Nishi, Takehide; Takemoto, Toshiyasu; Yamaguchi, Takeshi  
 PATENT ASSIGNEE(S): Sankyo Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 42 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

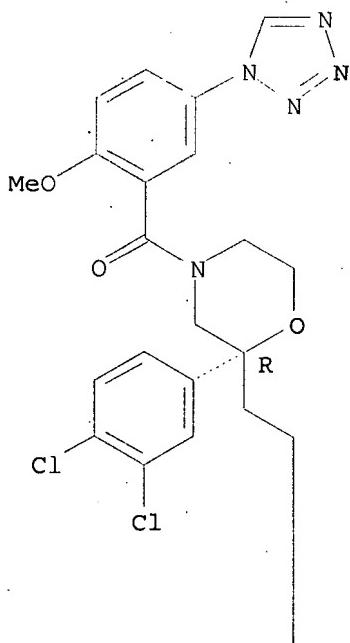
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002316987	A	20021031	JP 2001-122866	20010420
PRIORITY APPLN. INFO.:				
OTHER SOURCE(S):	MARPAT 137:333154			
GI				

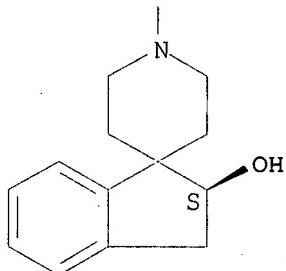


- AB Compns., useful for treatment of respiratory tract diseases such as asthma, bronchitis, allergic diseases, incontinence, etc., such as (1-[2-[(3R)-(3,4-dichlorophenyl)-1-[2-methoxy-5-(tetrazol-1-yl)benzoyl]pyrrolidin-3-yl]ethyl]spiro[[2S]-hydroxy]indan-1,4'-piperidine], I). IC<sub>50</sub> of I (preparation given) for binding of substance P by NK1 receptors of guinea pig crude lung membrane preparation was 0.88 ng/mL. Pharmaceutical formulations were also given.
- IT 335394-97-3P 335395-01-2P  
 RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of 2-alkoxybenzene derivs. as tachykinin receptor antagonists)
- RN 335394-97-3 CAPLUS
- CN Morpholine, 2-(3,4-dichlorophenyl)-2-[2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-4-[2-methoxy-5-(1H-tetrazol-1-yl)benzoyl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A

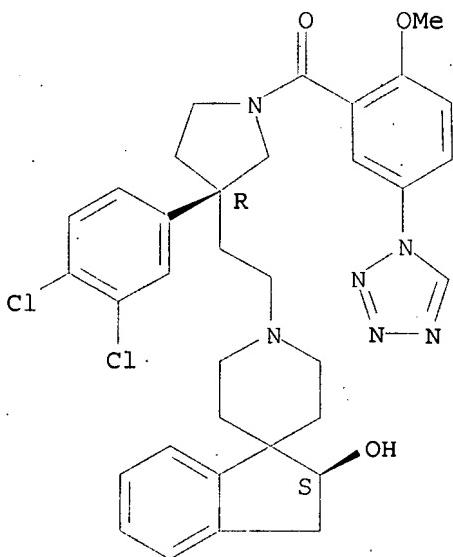




RN 335395-01-2 CAPLUS

CN Pyrrolidine, 3-(3,4-dichlorophenyl)-3-[2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-1-[2-methoxy-5-(1H-tetrazol-1-yl)benzoyl]-, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

L4 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2001:300708 CAPLUS

DOCUMENT NUMBER: 134:311213

TITLE: Preparation of alkoxybenzoyl moiety-containing heterocyclic compounds as neurokinin antagonists  
Nishi, Takahide; Takemoto, Toshiyasu; Yamaguchi, Takeshi

INVENTOR(S):

PATENT ASSIGNEE(S): Sankyo Company, Ltd., Japan  
SOURCE: PCT Int. Appl., 97 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

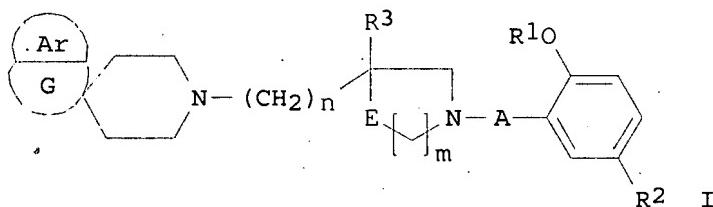
PATENT NO.

KIND DATE

APPLICATION NO.

DATE

-----  
 WO 2001029027 A1 20010426 WO 2000-JP7344 20001020  
 W: AU, BR, CA, CN, CZ, HU, ID, IL, IN, KR, MX, NO, NZ, PL, RU, TR,  
 US, ZA  
 RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,  
 PT, SE  
 JP 2001187790 A 20010710 JP 2000-320128 20001020  
 PRIORITY APPLN. INFO.: JP 1999-300593 A 19991022  
 OTHER SOURCE(S): MARPAT 134:311213  
 GI



AB The title compds. I [R1 represents alkyl; R2 represents optionally substituted 5-membered heteroaryl containing nitrogen or optionally substituted 5-membered heterocyclyl containing nitrogen; R3 represents optionally substituted aryl or optionally substituted heteroaryl; A represents CO or SO<sub>2</sub>; E represents CH<sub>2</sub>, O or S; G represents an optionally substituted cycloalkane ring, an optionally substituted cycloalkene ring or an optionally substituted saturated heterocycle; Ar represents an optionally substituted aryl ring or an optionally substituted heteroaryl ring; m is 1 or 2; and n is from 2 to 4] are prepared. I have elevated oral absorbability and show favorable kinetics in vivo. Compds. of this invention are said to show metabolic stability and exhibit NK1, NK2, and NK3 receptor antagonism. Formulations are given.

IT 335394-97-3P 335395-01-2P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of alkoxybenzoyl moiety-containing heterocyclic compds. as neurokinin antagonists)

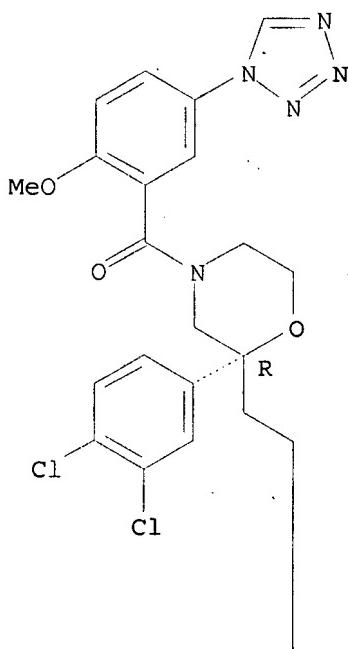
RN 335394-97-3 CAPLUS

CN Morpholine, 2-(3,4-dichlorophenyl)-2-[2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-4-[2-methoxy-5-(1H-tetrazol-1-yl)benzoyl]-, (2R)- (9CI) (CA INDEX NAME)

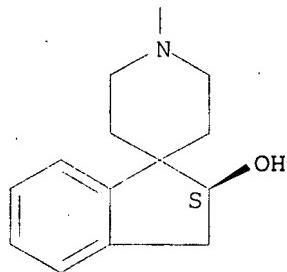
Absolute stereochemistry. Rotation (+).

10/590,305

PAGE 1-A



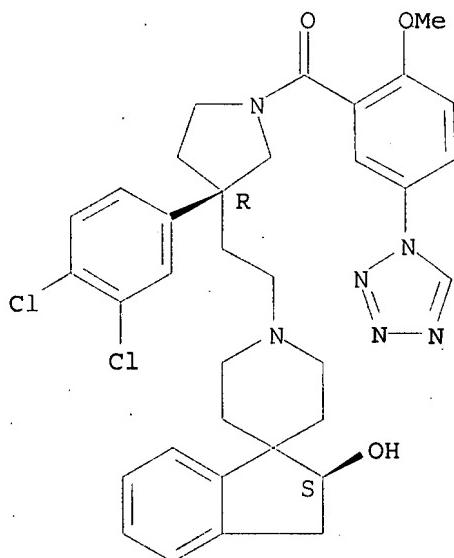
PAGE 2-A



RN 335395-01-2 CAPLUS

CN Pyrrolidine, 3-(3,4-dichlorophenyl)-3-[2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-1-[2-methoxy-5-(1H-tetrazol-1-yl)benzoyl]-, (3R)- (9CI) (CA INDEX NAME)

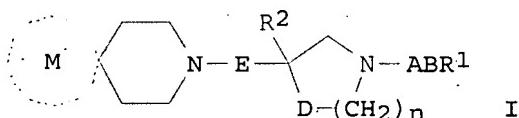
Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2001:85593 CAPLUS  
 DOCUMENT NUMBER: 134:141732  
 TITLE: Spiropiperidines for prevention and treatment of tachykinin-mediated diseases  
 INVENTOR(S): Nishi, Takehide; Nakajima, Katsuyoshi; Iio, Yukiko; Yamaguchi, Takeshi  
 PATENT ASSIGNEE(S): Sankyo Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 46 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001031570	A	20010206	JP 1999-205489	19990721
PRIORITY APPLN. INFO.:			JP 1999-205489	19990721
OTHER SOURCE(S):	MARPAT 134:141732			
GI				



AB Spiropiperidines (I; R<sup>1</sup>, R<sup>2</sup> = (substituted) aryl or heteroaryl; A = CH<sub>2</sub>, CO, SO<sub>2</sub>; B = single bond, alkylene, alkenylene; D = O, S; E = alkylene, alkenylene; N = 1-3, M = (condensed) substituted cyclic alkyl group) and their pharmacol. acceptable salts are claimed for prevention and treatment of tachykinin-mediated diseases, including asthma, bronchitis, rhinitis, urinary incontinence, and ulcerative colitis. I were prepared, and their formulation examples of powders, granules, capsules, and tablets were

given.

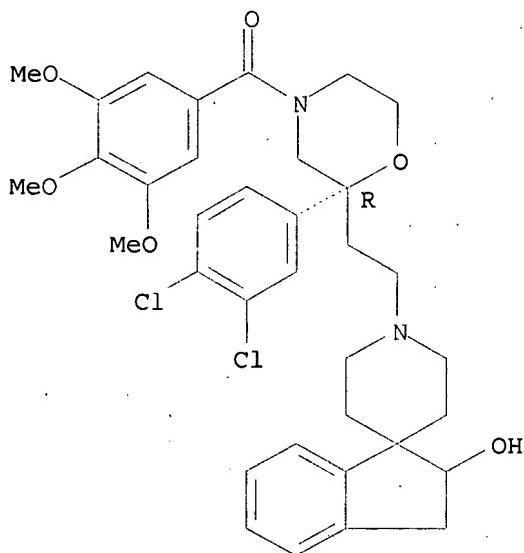
IT 231938-12-8P 231938-14-0P 231945-20-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (spiropiperidines for prevention and treatment of tachykinin-mediated diseases)

RN 231938-12-8 CAPLUS

CN Morpholine, 2-(3,4-dichlorophenyl)-2-[2-(2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl)ethyl]-4-(3,4,5-trimethoxybenzoyl)-, (2R)-(9CI) (CA INDEX NAME)

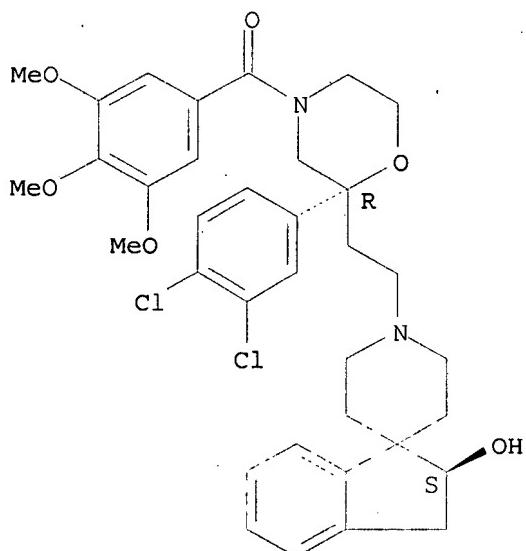
Absolute stereochemistry.



RN 231938-14-0 CAPLUS

CN Methanone, [(2R)-2-(3,4-dichlorophenyl)-2-[2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-4-morpholinyl](3,4,5-trimethoxyphenyl)- (CA INDEX NAME)

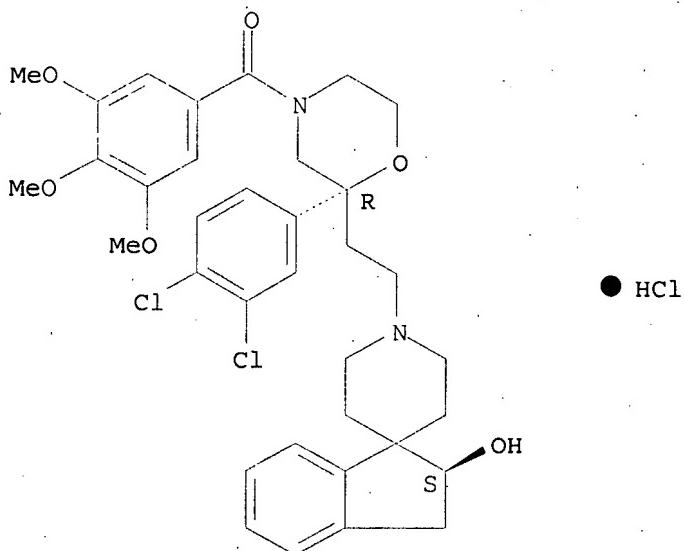
Absolute stereochemistry. Rotation (+).



RN 231945-20-3 CAPLUS.

CN Morpholine, 2-(3,4-dichlorophenyl)-2-[2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-4-(3,4,5-trimethoxybenzoyl)-, monohydrochloride, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



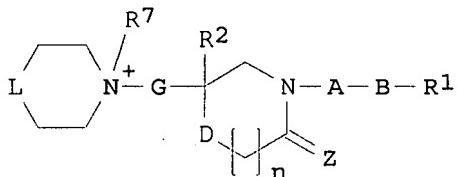
L4 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2000:865349 CAPLUS  
 DOCUMENT NUMBER: 134:25361  
 TITLE: Heterocyclic ring derivatives with alicyclic ring acylation for treatment of tachykinin-related diseases  
 INVENTOR(S): Nishi, Takehide; Yamaguchi, Takeshi  
 PATENT ASSIGNEE(S): Sankyo Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 146 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000344670	A	20001212	JP 1999-155848 JP 1999-155848	19990603 19990603
PRIORITY APPLN. INFO.:				
OTHER SOURCE(S): GI		MARPAT 134:25361		



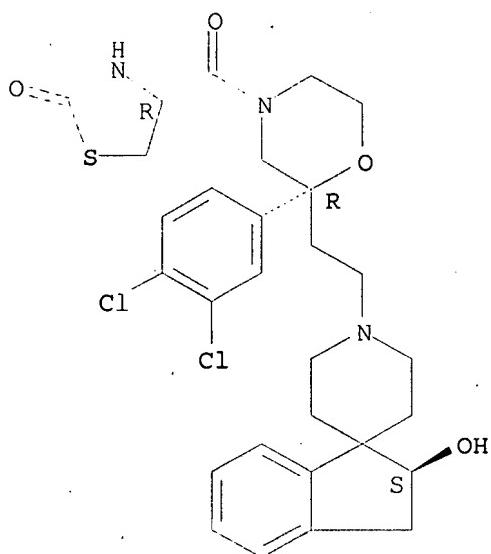
**AB** Heterocyclic ring derivs. with alicyclic ring acylation (I; R1 = (substituted) cycloalkyl and , saturated heterocyclic; R2 = (substituted) aryl and heteroaryl; A = methylene, carbonyl, sulfonyl; B = single bond, alkylene, alkenylene; D = O, S; G = alkylene, alkenylene; L = -N(R3)-, -C(R4)(R5)-, with R3 = (substituted) aryl and heteroaryl, R4 = H, (substituted) aryl heteroaryl, cycloalkyl, and saturated heterocyclic; R5 = amino(substituted)alkyl, amino, (substituted) acylamino, OH, (substituted)hydroxyalkyl, alkoxy, -CO-R6, with R6 = alkyl, alkoxy, amine residue, etc.); R7 = alkyl; Z = 2H, O; N = 0, 1, (2) and their pharmacologically acceptable salts and esters are claimed as selective NK2 receptor antagonists and for treatment of tachykinin-related diseases, including asthma, bronchitis, allergy, rhinitis, urinary incontinence. Formulation examples of I powders, granules, tablets, and capsules were given.

**IT** 226699-59-8P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(heterocyclic ring derivs. with alicyclic ring acylation for treatment of tachykinin-related diseases)

**RN** 226699-59-8 CAPLUS

**CN** Morpholine, 2-(3,4-dichlorophenyl)-2-[2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-4-[(4R)-2-oxo-4-thiazolidinyl]carbonyl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L4 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:508635 CAPLUS

DOCUMENT NUMBER: 133:281740

TITLE: Combined tachykinin receptor antagonist: synthesis and stereochemical structure-activity relationships of novel morpholine analogues

AUTHOR(S): Nishi, T.; Ishibashi, K.; Takemoto, T.; Nakajima, K.; Fukazawa, T.; Iio, Y.; Itoh, K.; Mukaiyama, O.; Yamaguchi, T.

CORPORATE SOURCE: Medicinal Chemistry Research Laboratories, Sankyo Co., Ltd., Tokyo, 140-8710, Japan

SOURCE: Bioorganic & Medicinal Chemistry Letters (2000), 10(15), 1665-1668

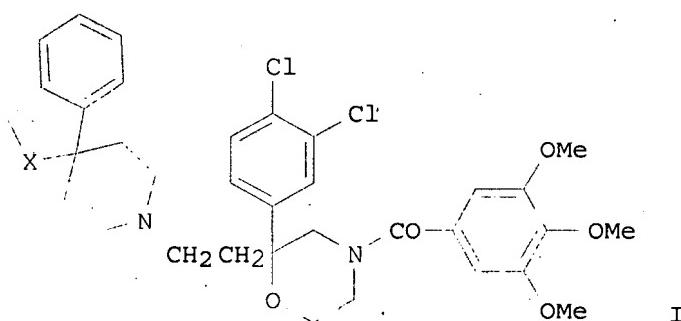
PUBLISHER: CODEN: BMCLE8; ISSN: 0960-894X  
Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 133:281740

GI



AB The authors report herein the synthesis and stereochem. structure-activity

relations of novel morpholine analogs I (X = S:O, CHO) with regards to NK1, NK2 and NK3 tachykinin receptor binding affinity. An essential requirement for more potent binding affinities was controlled by absolute configuration. (S,R)-I (X = S:O) and (S,R)-I (X = CHO) exhibited high binding affinities for NK1, NK2 and NK3 receptors.

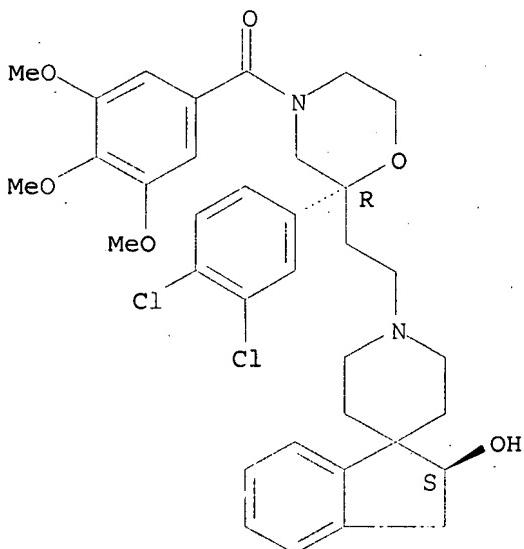
IT 231938-14-0P 299158-81-9P 299158-82-0P  
299158-83-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(preparation as tachykinin receptor antagonist)

RN 231938-14-0 CAPLUS

CN Methanone, [(2R)-2-(3,4-dichlorophenyl)-2-[2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-4-morpholinyl](3,4,5-trimethoxyphenyl)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

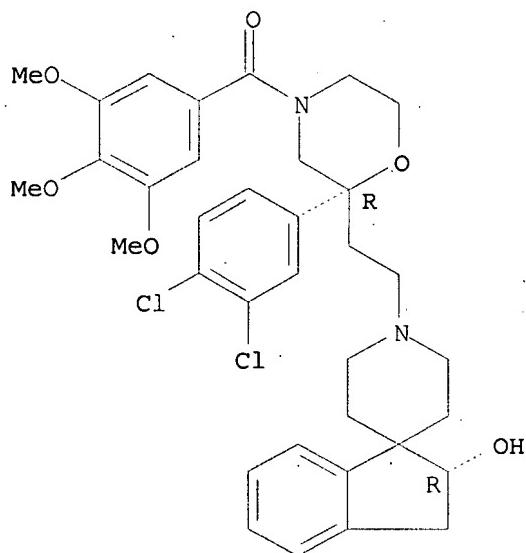


RN 299158-81-9 CAPLUS

CN Morpholine, 2-(3,4-dichlorophenyl)-2-[2-[(2R)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-4-(3,4,5-trimethoxybenzoyl)-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

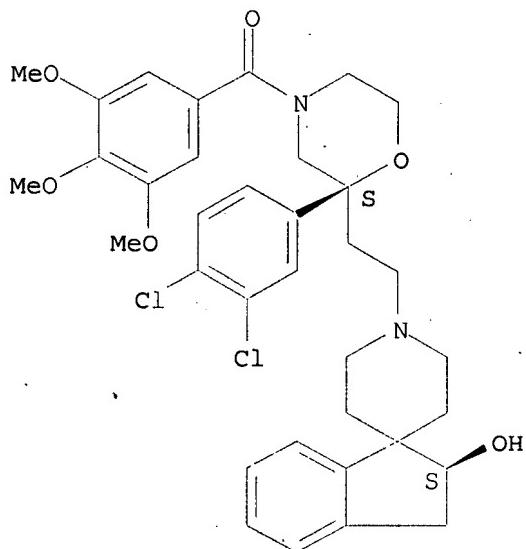
10/590,305



RN 299158-82-0 CAPLUS

CN Morpholine, 2-(3,4-dichlorophenyl)-2-[2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-4-(3,4,5-trimethoxybenzoyl)-, (2S)- (9CI) (CA INDEX NAME)

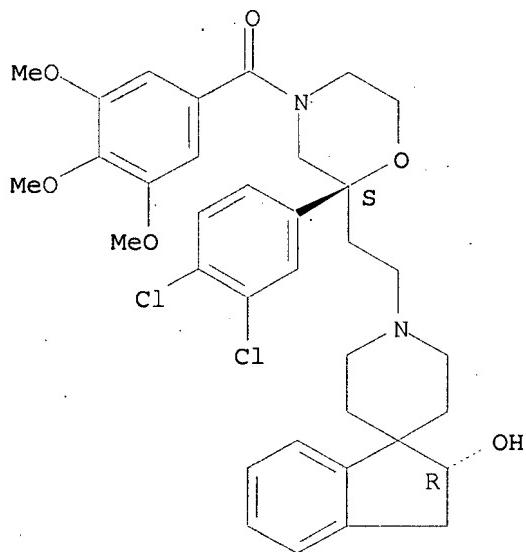
Absolute stereochemistry.



RN 299158-83-1 CAPLUS

CN Morpholine, 2-(3,4-dichlorophenyl)-2-[2-[(2R)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-4-(3,4,5-trimethoxybenzoyl)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1999:487290 CAPLUS  
 DOCUMENT NUMBER: 131:116241  
 TITLE: Preparation of spiropiperidine and spiropiperidinium derivatives exhibiting antagonism to all of NK1, NK2 and NK3 receptors  
 INVENTOR(S): Nishi, Takahide; Yamaguchi, Takeshi; Iio, Yukiko; Takemoto, Toshiyasu; Nakajima, Katsuyoshi  
 PATENT ASSIGNEE(S): Sankyo Company, Ltd., Japan  
 SOURCE: PCT Int. Appl., 95 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9937642	A1	19990729	WO 1999-JP226	19990122
W: AU, BR, CA, CN, CZ, HU, ID, IL, IN, KR, MX, NO, NZ, PL, RU, TR, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2318361	A1	19990729	CA 1999-2318361	19990122
AU 9920739	A	19990809	AU 1999-20739	19990122
AU 741924	B2	20011213		
JP 2000034288	A	20000202	JP 1999-14058	19990122
BR 9907173	A	20001010	BR 1999-7173	19990122
EP 1057827	A1	20001206	EP 1999-901134	19990122
EP 1057827	B1	20030910		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
TR 200002072	T2	20001221	TR 2000-200002072	19990122
HU 200100939	A2	20020529	HU 2001-939	19990122
RU 2184735	C2	20020710	RU 2000-118815	19990122
NZ 505599	A	20030630	NZ 1999-505599	19990122
AT 249455	T	20030915	AT 1999-901134	19990122
PT 1057827	T	20031128	PT 1999-901134	19990122

ES 2203061	T3	20040401	ES 1999-901134	19990122
IL 137295	A	20051218	IL 1999-137295	19990122
IN 2000KN00113	A	20050708	IN 2000-KN113	20000630
US 6511975	B1	20030128	US 2000-616092	20000713
NO 2000003630	A	20000920	NO 2000-3630	20000714
NO 317979	B1	20050117		
MX 2000PA07240	A	20020508	MX 2000-PA7240	20000721
HK 1032780	A1	20040319	HK 2001-103216	20010508
PRIORITY APPLN. INFO.:			JP 1998-11112	A 19980123
			JP 1998-132959	A 19980515
			WO 1999-JP226	W 19990122

OTHER SOURCE(S): MARPAT 131:116241

GI For diagram(s), see printed CA Issue.

AB Compds. having general formula (I) or (II), pharmacol. acceptable salts thereof and esters or other derivs. of the same: [R1, R2 = optionally substituted aryl or heteroaryl; A = CH<sub>2</sub>, CO, SO<sub>2</sub>; B = single bond, alkylene, alkenylene; D = O, S; E = alkylene, alkenylene, Q, Q<sub>1</sub>, Q<sub>2</sub>; ring G = optionally substituted C<sub>5</sub>-8 cycloalkene ring or C<sub>5</sub>-8 cycloalkane; Ar = optionally substituted aryl ring or heteroaryl ring; R = lower alkyl; n = 1-3], which are useful for the treatment and prevention of asthma, and/or bronchitis, rhinitis, allergy, and urinary incontinence (no data), are prepared. Thus, a suspension of 2-[(2R)-(3,4-dichlorophenyl)-4-(3,4,5-trimethoxybenzoyl)morpholin-2-yl]ethyl methanesulfonate, spiro[(2-hydroxy)indan-1,4'-piperidine] hydrochloride, NaHCO<sub>3</sub>, and KI in DMF was stirred at 80° for 8 h to give 73% 1-[3-[(2R)-(3,4-dichlorophenyl)-4-(3,4,5-trimethoxybenzoyl)morpholin-2-yl]ethyl]spiro[(2-hydroxy)indan-1,4'-piperidine] (III). A dispersant containing III was formulated.

IT 231938-12-8P 231938-14-0P 231938-16-2P  
231945-20-3P

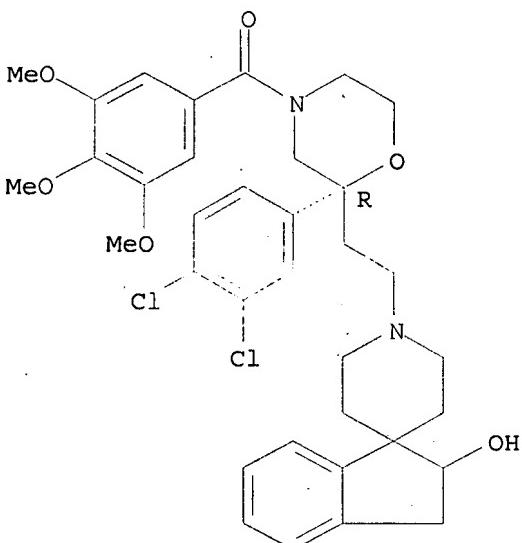
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of spiropiperidine and spiropiperidinium derivs. exhibiting antagonism to all of NK1, NK2 and NK3 receptors as therapeutics)

RN 231938-12-8 CAPLUS

CN Morpholine, 2-(3,4-dichlorophenyl)-2-[2-(2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl)ethyl]-4-(3,4,5-trimethoxybenzoyl)-, (2R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

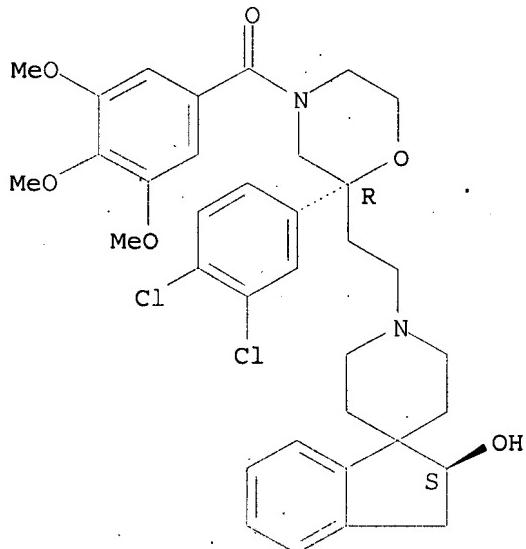


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RN 231938-14-0 CAPLUS

CN Methanone, [(2R)-2-(3,4-dichlorophenyl)-2-[2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-4-morpholinyl](3,4,5-trimethoxyphenyl)- (CA INDEX NAME)

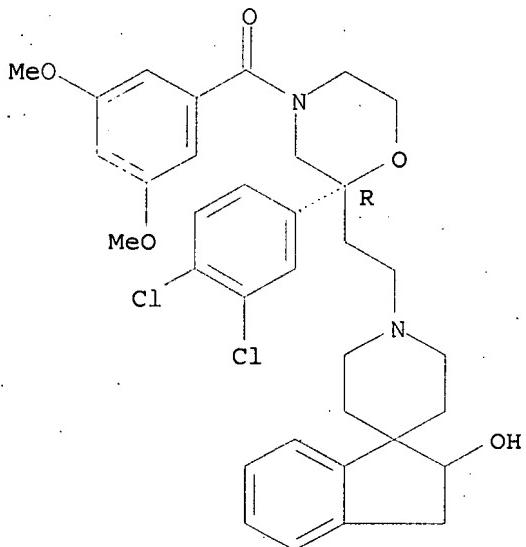
Absolute stereochemistry. Rotation (+).



RN 231938-16-2 CAPLUS

CN Morpholine, 2-(3,4-dichlorophenyl)-2-[2-(2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl)ethyl]-4-(3,5-dimethoxybenzoyl)-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

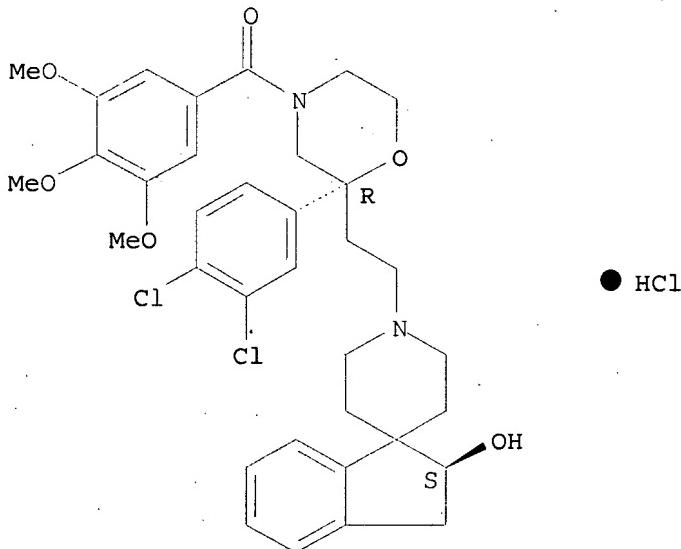


RN 231945-20-3 CAPLUS

CN Morpholine, 2-(3,4-dichlorophenyl)-2-[2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-4-(3,4,5-trimethoxybenzoyl)-, monohydrochloride, (2R)- (9CI) (CA INDEX NAME)

10/590,305

Absolute stereochemistry. Rotation (+).



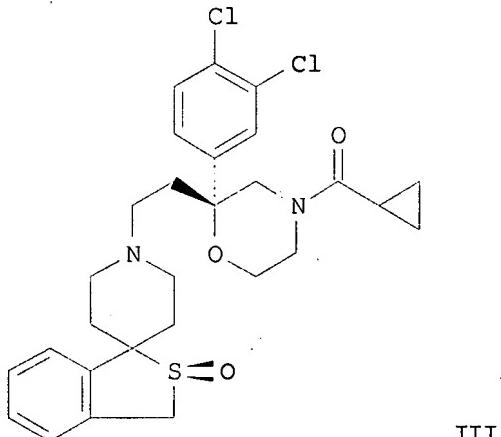
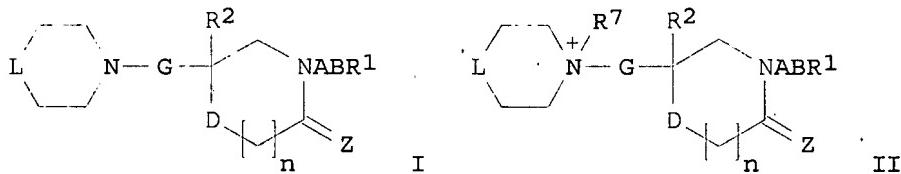
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1999:375536 CAPLUS  
DOCUMENT NUMBER: 131:31947  
TITLE: Preparation of alicyclic acylated heterocyclic derivatives as antagonists of tachykinin NK2 receptor  
INVENTOR(S): Nishi, Takahide; Yamaguchi, Takeshi  
PATENT ASSIGNEE(S): Sankyo Company, Ltd., Japan  
SOURCE: PCT Int. Appl., 282 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9928307	A1	19990610	WO 1998-JP5500	19981204
W: AU, BR, CA, CN, CZ, HU, ID, IL, KR, MX, NO, NZ, PL, RU, TR, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2312770	A1	19990610	CA 1998-2312770	19981204
AU 9913523	A	19990616	AU 1999-13523	19981204
AU 734908	B2	20010628		
JP 11240880	A	19990907	JP 1998-345936	19981204
BR 9815348	A	20001017	BR 1998-15348	19981204
EP 1048658	A1	20001102	EP 1998-957185	19981204
EP 1048658	B1	20050615		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
TR 200001622	T2	20010723	TR 2000-200001622	19981204
RU 2174122	C1	20010927	RU 2000-114184	19981204
HU 200004321	A2	20020228	HU 2000-4321	19981204
CN 1121398	B	20030917	CN 1998-813494	19981204
AT 297906	T	20050715	AT 1998-957185	19981204
IL 136510	A	20050925	IL 1998-136510	19981204
PT 1048658	T	20051031	PT 1998-957185	19981204

ES 2243012	T3	20051116	ES 1998-957185	19981204
NO 2000002833	A	20000803	NO 2000-2833	20000602
NO 318794	B1	20050509		
US 6288059	B1	20010911	US 2000-586728	20000605
MX 2000PA05587	A	20010910	MX 2000-PA5587	20000606
HK 1031870	A1	20050916	HK 2001-102307	20010330
PRIORITY APPLN. INFO.:			JP 1997-334608	A 19971204
			WO 1998-JP5500	W 19981204

OTHER SOURCE(S): MARPAT 131:31947  
GI



AB      Claimed and prepared are compds. represented by general formula [I or II; R1 = C3-7 cycloalkyl, (un)substituted 3-7 membered saturated heterocyclyl, substituted cycloalkyl; R2 = (un)substituted aryl or heteroaryl; A = CH2, CO, SO2; B = single bond, C1-4 alkylene, C2-4 alkenylene; D = O, S; G = C1-4 alkylene, C2-4 alkenylene; L = NR3, CR4R5; wherein R3 = (un)substituted aryl or heteroaryl; R4 = H, (un)substituted aryl, heteroaryl, cycloalkyl, or 3-7 membered saturated heterocyclyl; R5 = lower alkyl, NH2, acylamino, acylamino-lower alkyl, N-(lower alkyl)acylamino-lower alkyl, OH, lower alkoxy, etc.; or CR3R4 = C5-8 cycloalkane or cycloalkene, (un)substituted 5-8 membered saturated heterocyclyl optionally fused with (un)substituted aryl or heteroaryl ring; R7 = lower alkyl; Z = H2, O; n = 0,1] having a selective antagonism to NK2 receptors and pharmacol. acceptable salts or derivs. thereof. These compds. are useful for the treatment or prevention of asthma, bronchitis, rhinitis, allergy, and urinary incontinence. Thus, 2-[(2R)-(3,4-dichlorophenyl)-4-(cyclopropanecarbonyl)morpholin-2-yl]ethanol methanesulfonate (preparation given) was condensed with spiro[benzo[c]thiophene-1(3H),4'-piperidine]-2-oxide hydrochloride in the presence of NaHCO3 and KI in DMF at 80° for 8 h to give the title compound (III). In a NK2 receptor binding assay, III showed IC50 of 0.76 ng/mL for inhibiting the binding of [3H]-SR-48968 to crude ileum membrane preparation from male Hartley guinea pig. Pharmaceutical formulations, e.g. a granule formulation containing III, were described.

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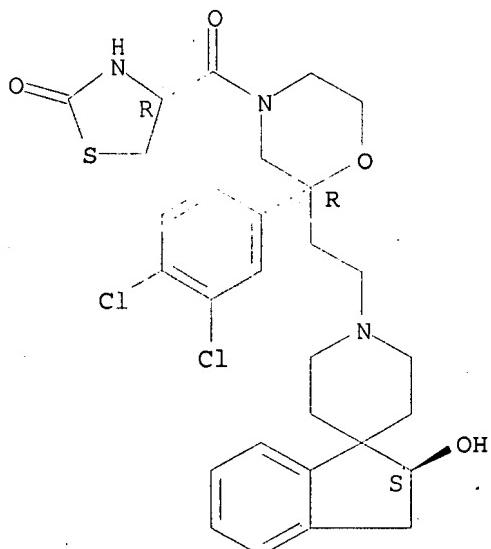
IT 226699-59-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of alicyclic acylated heterocyclic derivs. as antagonists of tachykinin NK2 receptor for therapeutic use)

RN 226699-59-8 CAPLUS

CN Morpholine, 2-(3,4-dichlorophenyl)-2-[2-[(2S)-2,3-dihydro-2-hydroxyspiro[1H-indene-1,4'-piperidin]-1'-yl]ethyl]-4-[(4R)-2-oxo-4-thiazolidinyl]carbonyl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT:

17

THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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FILE 'REGISTRY' ENTERED AT 12:07:59 ON 23 JUL 2007

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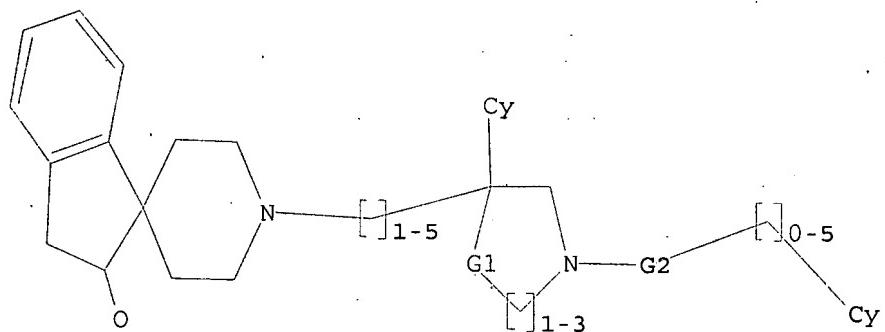
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L1 HAS NO ANSWERS

L1 STR

10/590,305



G1 C,O

G2 C,S

Structure attributes must be viewed using STN Express query preparation.

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